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ABSTRACT

This book contains construction plans of exhibits that have been collected during more than 10 years, and notes for their maintenance, at the Ann Arbor (Michigan) Hands-On museum. It is a useful source of hard-to-find information for exhibit builders, science fair participants, science teachers, students, and home tinkerers. This collection contains drawings and specifications in detail sufficient for a construction shop for 32 exhibits including: Bernoulli Ball; Cartesian Diver; Catenary Arch; Color Illusion; Colored Lights and Shadows; Color Reversal; Delayed Speech; Depth Illusion; Double Piddler; Engine That Runs on Light; Gear Table; Hand Cranked Generator; Hearing Frequency; Hologram, Transmission Type; Hot Air Balloon; Lens Table; Mechanical Motion #1 (Escapement); Mechanical Motion #2 (Wilberforce); Old Time Telephones; Pacemaker; Peripheral Vision; Pin Table; Pitcher Pump; Polarized Light; Pulleys; Reaction Time; Sand Pendulum; Shadow Wall; Spectra; Stroboscope; and Wimshurst Machine. Brief but useful information about building and operating 20 other exhibits is also presented. Also included are principles followed in the selection of exhibits and ways of making them safe and durable, ideas for exhibits that were considered but not built, and addresses for sources of special materials and products. (JRH)

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